

Claim:

1. A movable unit for screening excavated material that protectively covers or encases one or more utilities in an excavated trench, comprising:  
a screening member mounted to the unit and having at least one screen with a plurality of openings of appropriate size, with the excavated material passing through the openings of the said at least one screen to deposit onto and cover and encase the utility or utilities being installed in the trench as the unit moves.
2. A movable unit as claimed in claim 1, and further comprising a guide for placing a length of at least one utility onto which the screened material is deposited in the trench as the unit moves.
3. A movable unit as claimed in claim 1, and further comprising a plow for sweeping onto the top of said screening member excavated material lying along at least one side of the trench.
4. The movable unit as claimed in claim 1 wherein said screening member is mounted to said movable unit with a downward slope away from the direction of movement of the movable unit.
5. The movable unit as claimed in claim 1 and further comprising a shaker unit connected to said screening member to shake said screening member to facilitate passage of particles through the openings of said at least one screen.

6. The movable unit as claimed in claim 1 wherein said screening member comprises a plurality of screens spaced apart, one above the other, with said screens having progressively smaller openings from the top to bottom of the screening member to deposit in the trench layers of the material having progressively larger particle size from the bottom to the top of the trench.

7. The movable unit as claimed in claim 6 wherein said screening member is mounted to said movable unit with a downward slope away from the direction of movement of the movable unit.

8. The movable unit as claimed in claim 7 wherein the trailing end of each screen of said screening member extends out further in a direction rearward of the movable unit movement than the screen immediately below it.

9. The movable unit as claimed in claim 8 and further comprising a shaker unit connected to said screening member to shake said screening member to facilitate passage of particles through the openings of each of said plurality of screens.

10. The movable unit as claimed in claim 1 wherein said screening member comprises a first screen as an upper screen and a second screen as a lower screen, the trailing end of said first screen extending further in a rearward direction of the unit than the trailing end of said second screen, said second screen having openings of a smaller size than the openings of said first screen, whereby a first layer of smallest size particles passing through the openings of said first and second screens are deposited on the at least one utility in the trench, a second layer of particles of a size smaller than the openings of said first screen but larger

than the openings of said second screen that slides off of the top surface of said second screen onto the first layer of particles, and a third layer of particles of a size larger than the openings of said first screen that slide off of the top surface of said first screen onto the second layer of particles.

11. The movable unit as claimed in claim 10 and further comprising a vertical plate mounted on each side of said movable unit to support a wall of the trench and to prevent any undesirable materials from falling onto the at least one installed utility being covered by the layers of the particles.

12. The movable unit as claimed in claim 11 and further comprising a plow for sweeping onto the top of said screening member excavated material lying along at least one side of the trench.

13. The movable unit as claimed in claim 12, and further comprising a means for adjusting the height of said plows relative to the top of the trench.

14. The movable unit as claimed in claim 12 wherein said screening member is mounted to said movable unit with a downward slope away from the direction of movement of the movable unit.

15. The movable unit as claimed in claim 14, and further comprising a shaker unit connected to said screening member to shake said screening member to facilitate passage of particles through the openings of said first and second screens.

16. The movable unit as claimed in claim 14 wherein said screening member comprises said first screen as an upper screen and a second screen as a lower screen, the trailing end of said first screen extending further in a rearward direction of the unit than the trailing end of said second screen, said second screen having openings of a smaller size than the openings of said first screen, whereby a first layer of smallest size particles passing through the openings of said first and second screens are deposited on the at least one utility in the trench, a second layer of particles of a size smaller than the openings of said first screen but larger than the openings of said second screen that slides off of the top surface of said second screen onto the first layer of particles, and a third layer of particles of a size larger than the openings of said first screen that slide off of the top surface of said first screen onto the second layer of particles.

17. The movable unit as claimed in claim 10 and further comprising a vertical plate mounted on each side of said movable unit to support a wall of the trench and to prevent any undesirable materials from falling onto the at least one installed utility being covered by the layers of the particles.